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Edwards et al.(10) **Pub. No.: US 2010/0097323 A1**(43) **Pub. Date: Apr. 22, 2010**(54) **HYDROGEL-BASED TACTILE-FEEDBACK
TOUCH SCREEN****Publication Classification**(51) **Int. Cl.**
G06F 3/041 (2006.01)(52) **U.S. Cl.** **345/173**(57) **ABSTRACT**

A system and method for providing tactile feedback on a touch screen display unit is provided. The tactile feedback unit has a gel layer for deforming discrete surface areas of a touch-screen display; and a tactile feedback controller for controlling the deformation by the gel layer. The tactile feedback unit is overlaid onto a liquid crystal display, OLED display, or other types of touch screen displays. Areas of the gel layer are individually controllable by the tactile feedback controller, such that areas of the gel layer that overlay control elements of a graphical user interface displayed on the touch screen display are activated. Additionally, contact with the touch screen display by a user at an area defined as a control element causes the corresponding area of the gel layer to provide a tactile feedback, such as deformation, vibration, etc.

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